

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of fabrication of a cavity in a substrate for a component for electromagnetic waves, the method comprising the step of:
~~providing said cavity by removal of removing material from said substrate through immersing the substrate in a liquid bath of a chemical etchant, so that the produced to produce the cavity, the cavity has a top and a bottom side and sidewalls, and said cavity at one of said top and/or bottom sides exhibits an opening with comprising an opening on at least one side of said substrate, the opening comprising at least four sides, two of the sides having an equal length, the equal length differing from lengths of remaining sides, and the opening having at least two different adjacent angles.~~

2. (Previously Amended) The method of claim 1, wherein said component further comprises a conductive layer arranged as a ground plane covering said substrate, said ground plane being provided with at least one coupling slot and at least one conductor, said ground plane being connected to a component element, which is inserted into said cavity in said substrate.

3.(Previously Amended) Method of claim 1,
wherein said substrate is made of silicon.

4.(Previously Amended) Method according to claim 1,
wherein said component is one of a filter, diplexer, resonator or matching network.

5.(Previously Amended) Method according to claim 1,
wherein said substrate is etched from both sides.

6. (Withdrawn) A component for electromagnetic waves, said component comprising a substrate provided with a cavity being produced by removal of material from said substrate by immersing the substrate in a liquid bath of a chemical etchant, said cavity having a top and a bottom side and sidewalls,
wherein said cavity at one of said top and/or bottom sides exhibits an opening having at least four sides and having at least two different adjacent angles.

7. (Withdrawn) The component of claim 6,
wherein said component further comprises a conductive layer arranged as a ground plane covering said substrate, said ground plane being provided with at least one coupling slot and at least one conductor, said ground plane being connected to a component element, which is inserted into said cavity in said substrate.

8. (Withdrawn) The component of claim 6,
wherein said substrate is made of silicon.

9. (Withdrawn) The component according to claim 6,
wherein said component is one of a filter, diplexer, resonators or matching networks.

10. (Withdrawn) The component of claim 7,
wherein said conductive plane is made of a metallic layer.

11. (Withdrawn) The component of claim 6,
wherein said cavity is arranged in a resonator arrangement with coplanar waveguide (CPW) couplings, comprising said substrate with micromachined through cavity with electroplated surface.

12. (Withdrawn) The component according to claim 6,
wherein said cavity is made through preferential etching from the both sides of the substrate, having said sidewalls perpendicular to the surfaces of the cavity.

13. (Withdrawn) The component of claim 6,
wherein said substrate is enclosed within a housing of dielectric material.

14. (Withdrawn) The component of claim 10,
wherein microstrips are arranged on a cap.

15. (Withdrawn) The component according to claim 7,
wherein said cavity has a length, $n\lambda$, where $n = 1, 2, \dots$, wherein λ is the wavelength.

16. (Withdrawn) The component of claim 11,
wherein the components is provided with low CPW or Coplanar Strip (CPS) waveguide input and output-coupling networks.

17. (Withdrawn) The component of claim 14,
wherein the cavity is rhombus shaped while end sections of said strips are angularly arranged relative cavity edges.

18. (Withdrawn) The component of claim 14,
wherein end sections of the strips follow cavity edges, i.e. they have same angle as
the cavity edges.

19. (Withdrawn) A method of fabricating a component according to claim 8,
comprising the steps of:

- providing a conductive plane,
- arranging the conductive plane with coupling openings through milling,
- providing a microwave element on a first surface of said conductive plane,
- providing a dielectric layer on a second surface of said conductive plane,
- arranging microwave conductors on the dielectric layer,
- providing a silicon wafer with orientation
- exposing selected areas on said silicon plate to wet etching until cavities of
desired depth are produced,
- covering (electroplating) the etched surfaces by a conductor, and
- attaching said conductive plate to said silicon plate, e. g. by means of anodic
bonding.

20. (New) A method of fabricating a component comprising:
- (a) providing a conductive plane;
 - (b) arranging the conductive plane with coupling openings;
 - (c) providing a microwave element on a first surface of the conductive plane;
 - (d) providing a dielectric layer on a second surface of the conductive plane;
 - (e) arranging microwave conductors on the dielectric layer,
 - (f) providing a silicon wafer with orientation;
 - (g) exposing selected areas on the silicon wafer to wet etching until a cavity of a desired depth is produced, the cavity comprising an opening of least four sides, two of the sides having an equal length, the equal length differing from lengths of remaining sides, and the opening having at least two different adjacent angles;
 - (h) covering etched surfaces resulting from act (g) by a conductor, and
 - (i) attaching the conductive plate to the silicon wafer.